PHILADELPHIA & READING RAILROAD, MILL CREEK BRIDGE
Pennsylvania Historic Railroad Bridges Recording Project
Spanning Mill Creek, east of Schuylkill Expressway (I-76)
Gladwyne vic.
Montgomery County
Pennsylvania

HAER No. PA-536

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
1849 C Street, NW
Washington, DC 20240

HAER
PA
46-GLAWY.V
1-

HISTORIC AMERICAN ENGINEERING RECORD

PHILADELPHIA & READING RAILROAD, MILL CREEK BRIDGE

HAER No. PA-536

Location:	Spanning Mill Creek, east of Schuylkill Expressway (I-76), Gladwyne vicinity, Montgomery County, Pennsylvania.
USGS Quadrangle:	Norristown, Pennsylvania (7.5-minute series).
UTM Coordinates:	18/478120/4432570
Date of Construction:	1863.
Basis for Dating:	Interstate Commerce Commission valuation records.
Date of Alteration:	1917.
Designers:	Philadelphia & Reading Railroad: Gustavus A. Nicolls, Superintendent; J. Dutton Steele, Chief Engineer.
Builder:	Philadelphia & Reading Railroad.
Present Owner:	Norfolk Southern Railroad.
Present Use:	Railroad bridge.
Structure Type:	Stone arch.
Significance:	This structure is significant as a well-preserved example among dozens of stone arch bridges built along the Philadelphia & Reading Railroad during the mid-nineteenth century, and one of few with a curving horizontal alignment.
Historian:	Justin M. Spivey, April 2001.
Project Information:	The Historic American Engineering Record (HAER) conducted the Pennsylvania Historic Railroad Bridges Recording Project during 1999 and 2000, under the direction of Eric N. DeLony, Chief. The project was supported by the Consolidated Rail Corporation (Conrail) and a grant from the Pennsylvania Historical and Museum Commission (PHMC). Justin M. Spivey, HAER engineer, researched and wrote the final reports. Preston M.

Thayer, historian, Fredericksburg, Virginia, conducted preliminary research under contract. Jet Lowe, HAER photographer, and Joseph E. B. Elliott, contract photographer, Sellersville, Pennsylvania, produced large-format photographs.

Description and History

As the Philadelphia & Reading Railroad (P&R) built its main line up the Schuylkill from Port Richmond to Mount Carbon, it encountered dozens of small tributaries to the river. Wooden structures sufficed during the initial construction campaign of 1834 to 1841, but Superintendent Gustavus A. Nicolls and Chief Engineer Richard B. Osborne soon adopted an emphasis on more permanent structures.[1] Their annual reports mention dozens of shorter wooden bridges replaced with stone arches throughout the 1840s. These structures were too numerous to list individually, however. The first bridges mentioned by name are those designed by Nicolls for major Schuylkill River crossings in the 1850s. It is therefore difficult to date small stone arches such as the railroad's bridge over Mill Creek. An Interstate Commerce Commission valuation survey cited "original paper plan 208/9" from 1863, which would put the Mill Creek bridge under the purview of Nicolls and Chief Engineer J. Dutton Steele.[2]

The Mill Creek Bridge is distinguished by its horizontal alignment, which is on a slight curve. Its five spans measure 30'-4", 28'-0", 28'-6", 27'-9", and 30'-0". The arches have a segmental profile, rising 7'-0" from springing to crown in the shorter spans and 11'-0" in the longer spans. Wide pilasters separate the first and last arches (over local roads) from the middle three (over the creek). The stone is cut into rectangular blocks throughout, smooth-faced in the arch barrels, but rock-faced on the piers, pilasters, and spandrel walls. On the upstream side in particular, the voussoirs appear almost crenelated because of their prominently projecting rock faces. Almost all of the stone work is still visible at this writing, although one section of spandrel wall has been replaced by concrete. Brown-King Construction Co. removed the original coping, installed waterproofing, and built a new 24'-0"-wide concrete deck with steel pipe railings in 1917.[3]

Notes

1. Philadelphia & Reading Rail Road Co., *Annual Report of the President and Managers of the Philadelphia and Reading Rail Road Company to the Stockholders* (Philadelphia, 1844), 23.

2. Interstate Commerce Commission, Bureau of Valuation, Engineering Field Notes, Philadelphia & Reading Railroad, Notebook No. 118, pp. 25-26 (20 July 1920), in Box 75, Record Group 134, National Archives, College Park, Md.

3. Interstate Commerce Commission, op. cit.

Acknowledgment

The author is grateful to Edward T. Addison, Jr., President of the Historical Society of Montgomery County, for responding to a preliminary survey form.

Additional Sources

1. Jay V. Hare, *History of the Reading* (Philadelphia: ABC Duplicator Co., 1966).

2. Milepost 9.74, region/division/branch 150322, correspondence files, Consolidated Rail Corp., Philadelphia, Pa. [transferred to Norfolk Southern Railway Co., Atlanta, Ga.].